

17. Dec. 1642

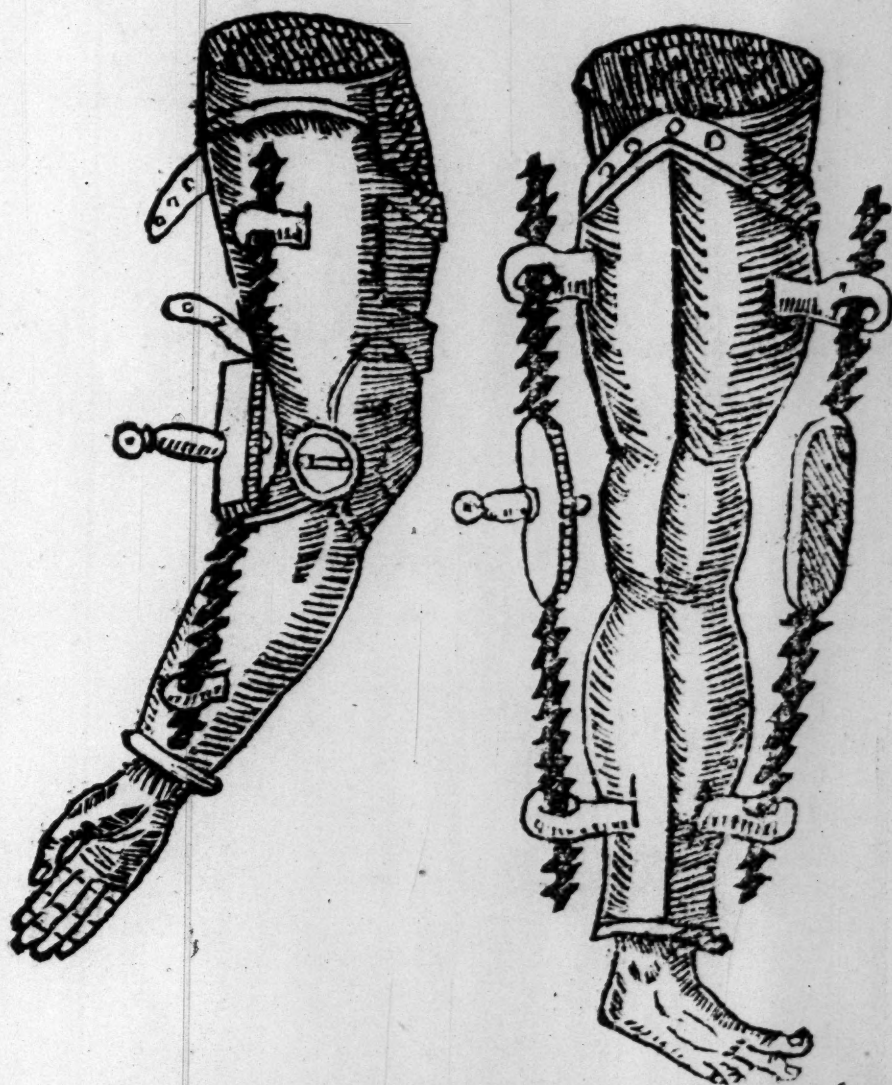
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Gulielm. Fabricius Hildamus,
H I S

EXPERIMENTS IN CHYRURGERIE:

Concerning Combustions or Burnings, made
with Gun powder, Iron shot, Hot-water, Lightning, or
any other fiery matter whatsoever. In which is excellent-
ly described the differences, Signs, Prognostication and
cures, of all accidents and burning themselves.

Very necessary and useful for all Gentlemen, and Soldiers
as well of the Trayned Bands, as others ; especially upon sudden oc-
casions. Translated out of Latine by Iohn Steer, Chyrurgeon.



London, Printed by Barnard Alsop, living in Grubstreet, 1642.



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Chap. 1.



CHAP. I.

*Of the Definition and cause of Combustions or
Burnings.*

ALthough Combustions be very well knowne from other effects, yet for the better explaining of the Doctrine, before wee enter any further, we will thus describe it.

Combustion is the solution of continuity of Epidermis or the outward skin of the body, sometimes of *Cutis* or the true skin, and oftentimes of the *Musculi*, Flesh, Veynes, Arteries, Nerves, &c. marked with the strength of the Fire; Now there followeth after this Combustion vehement paine, inflammation, pustels, &c. and if the Combustion be deep, the body will be foule, and will easily producc a filthy and malignant Vicer, for as soone as ever the fire or the fiery substance hath touched the skin, the radicall moysture is presently dryed from the part; hereby the skin waxeth hard, and is drawn together. The rest of the Humour which remaineth within the skin and the parts adjacent, becommeth very hot, and getteth the nature of the Fire: Furthermore, that hardnesse of the skin which the parts circumjacent have drawne

drawne together, as also the Ebullition of Humours and solution of Continuity do raise intollerable pain, which draweth unto it many humours from the parts adjacent, which (if the Combustion be but light) doth run together under the upper skin, and hardneth the same, by reason of the strength of the Fire; and not admitting transpiration they are lifted up, and hereby come pultels; but if the Combustion be great, so that the true skin be also hurt, it will be hardned unto an Escarre, then the Humours which are ingendred and whatsoever else is retained and imprisoned under that hard skin will still flow thither by reason of the paine, whereby not onely the heat which they have received of the Fire is increased; but also what blood or Humours soever doth flow from the body and the parts adjacent, do also wax hot and burning, and doe get a certaine sharpe and biting quality: Hereby it cometh to passe, that the Humours doe crode and know the place affected, and doe cause a great Ulcer.

Furthermore it is to be noted, that as there are many things with the which the Fire doth imprint his strength and quality, which as they doe differ in substance, so one much more vehemently burneth then the other; therefore how much hard or solid the wood or mettle is, so much the more ardent heat is retained therein: Also the heat of Oyle, Fat, waxe, pitch, new wine boyled unto the third part, as hereafter we will declare by an example; and those which doe lightly sticke are much more hotter then hot water; For experience teacheth that Lead will be dissolved in hot Oyle, which will never be done in water, although it be

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be in the height of heat. When Lyme is quenched then it is so heated, that not onely it exulcerateth and burneth the skin and the flesh, but also it most violently draweth together the skin, nervs, and junctures. But the most vehement and dangerous Fire of all, is Heavenly Fire, or Lightning, for it containeth supernaturall Faculties, as hereafser in order shall be declared.



CHAP. II.

The Degree and distribution of Combustions declared in three particulars, as also from whence the Directions curative are to be taken.

ALthough Combustions be made of divers matters, as with mettels and liquors, as wee have afore declared, yet that little or nothing profiteth to the cure; for even as Combustions made with red hot Iron is like unto Combustions made with Gold or Silver being hot, so also Combustions whether they be made with hot Oyle, wax, pitch, &c. among themselves (according to their substance) doe not differ, neither do they require a particular Method in curing; Even as that most worthy D.D. *Laurentius Faubertus*, a singular man, and well practised in Chirurgery, doth testifie. Now as the Cure may bee rightly instituted, we will divide all Combustions, of what fiery matter soever they are made, into 3. divisions, to wit, into a Small, Indifferent, and Great;
For

For if the thing which burneth doth not long stick unto the body, or be but light as straw, flax, hemp, or any kind of light or dry wood, or any thing which quickly falleth off, they are but only pustels raised, and this is the first degree or particular: *But if the substance doe something longer stick, or shall be induced with a more violent heat, then not only the Pustels are raised, but also the true skin is made destitute of Radicall moysture from the part, and it is something dried and drawn together, but not as yet any Escar made.*

Thirdly, if the fiery matter do stick very long, and doth contain in it a most violent heat, then not onely the true skinn, but also the flesh, veins, arteirs, Nerves &c. are burned, drawn together, and dried into an E-skar, because the naturall moysture is consumed, with the strength of the fire: wherfore there are Medicines which are to be changed and applyed, according to these differences, as hereafter is declared. *The second Iudication is taken from the part affected, for not one and the same Medicine doth agree with the Eye Mem-bers, generative, nerves, Iunctures, musculous, flesh, &c.* Also women and children, who are endued with an exquisite sence, do require more gentle Medicines, but contrary those of a hard and rustique flesh, and which are strong men, require more stronger Remedies, as Galen rightly admonisheth.

From this description, and distribution of Combustions the Method of curing easily appeareth, which wee (God willing) will declare in three Chapters, like as wee have distributed Combustions in three Species or Particulars.



CHAP. III.

The Signes by the which those three Degrees of Combustions may be knowne and distinguished.

SEeing that wee have divided Combustions into three degrees or species, and further, have prescribed a proper remedy unto every particular, it is necessary to declare how they are distinguished by signes and notes; Therefore the signes of the first particular or small Combustion are these, rednesse of the skin, a sharpe and pricking pain, like as though the skin were rubbed with Nettle-seed; by and by (except there be fit remedies applyed) the place is inflamed, and pustles doe arise, in the which is contained cleere and white water, as also the upper skin is separated. A light combustion is knowne by the Circumstances, to wit, that the firy substance was gentle, as Straw, Flaxe, Hempe, and the like; or that did fall off, as hot water: or that the part touched it but a little moerent of time, on the contrary in the other species, the firy substance did touch the part a longer time, or it retained some

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greater

greater heat in it, as hot iron, or any liquid mettles hard wood, Pitch, Oyle, Wax, and the like : From hence it commeth, that the place doth presently inflame, waxeth red, painfull and burneth, and in the very same moment pustels are elevated, in which are contained thin water, and waxeth yellow and is sore by reason of the stretching of the skin, which is stretched and drawne together by the stanch of the fire. Now in the last Species, even in the same moment when the fiery substance doth stick to the body, there are pustels elevated, but presently they fall again, and chiefly in same place where the Combustion is great and vehement, and the under skinne seemeth blacke and wanne, and hardly feeleth, though it bee pricked with a Lancet, for there is a hard and dry crust, which when it falleth off, there remaineth a deep and profound Ulcer, from the nature of the fiery matter, and the space how long it hath stucke unto the body, a great Combustion may be knowne. Furthermore Combustions doth speedily require a Surgeon, and let him inquire to what Species it is to be referred To wit, whether it be light, indifferent or great, if it be light, let it be holpen with the remedies declared in the 6. Chap. least pustels bee raised; if indifferent, then tune unto the 7. Chap. but if it be vehement and great, proceed; as we have declared in the 8. Chapter.

CHAP IV.

The Signe or Prognostication of Combustions.

A Light Combustion, where the the skin is only hurt, although it be something painfull, yet it may easily, and in a short time be cured, and there will scarce any scarre be perceived, if the cure be rightly instituted, and according to Art : But contrary, a great Combustion is hard to be healed, which also leaveth behinde it a filthy and withered scarre, by reason of the perdition and contraction of the skin, if pustils do not appeare in the beginning. The many humours do concur together unto the offended part, which do putrifie and get a kind of a sharpe and knawing quality, so that they doe deeply cride the skin and flesh, and do cause a rotten ulcer and naughty Scar: Therefore the pustels are presently to be cut, that the sharp and hot water may flow forth.

In wholsome and well-tempered bodies Combustions is healed with a little labour : Contrary in foule and plethorique bodies, it is hardly cured, and doth easily grow to a putred ulcer.

For paine doth continually draw unto it Humours and blood from the Body, hereby the part affected, waxeth hot, and is flamed, and divers and naughty Symtomes doe follow.

Combustions of the head and face do leave behind them smooth scarres, for the skin is so dried and contracted with the fire, and the pores so shut, that the haire will never after come forth, nor grow.

Combustions of the Eyes and the Eye-browes, and of the members Adnata and Cornea although they be light, yet are they dangerous, and there may easily follow a deprivation of sight, or at the least a great imbecility, and the eye-lids may be turned inwards.

Also Combustions of the Groyne are very dangerous, and hard to be cured, for these Members neere unto the privie parts are moist, weake, and easily hurt by flux of humours.

Combustions of the Belly is alwayes dangerous and hard to be cured, for the muscels of *Abdomen* are in perpetuall motion, by reason of inspiration expiration and extention, which is mad with meat and drinke, excretion of excrement, laughing, crying, as I have observed in my Country of *Hildane* in a certaine Childe of three yeares old, for hee being affected with a dangerous burne in the belly procured us much businesse the space of eight months.

But if an intestine or gut in any part be burnt, it is mortall, as also the burning of Lightning is mortall, as it is declared in its proper place.

Combustion of the great vessels of the Arteries and Veynes are dangerous, chiefly if it be deepe,
for

for the heat contracteth and shutteth those vessels whereby the spirits and blood cannot flow to give life and nourishment, and then followeth *Gangrena* and *Atrophia*, as wee have shewed in our Tract *De Gangrena & Sphacelo*. Burning also of the Nerves and Articuls doe easily draw together the junctures: Therefore it is needfull that the Surgeon doe use great diligence in these kinde of Burnings, and that he study presently from the beginning to soften the hardnesse and roughnesse of the skin with fit medicines, and to draw away and disperse the violent heat of the fire.

CHAP. V.

Of a two-fold Method of curing Combustions.

ALthough there be an infinite number of Medicines in use both among Practitioners and the vulger sort of people for burnings, whether they be Plaisters or Ointments, juices, or distilled water; neverthelesse, that all doe tend to the same end, to wit, that they doe either choke, resolve, or dissipate the corrupt matter or heat, which is left in the part, now the suffocating or choking of corrupt matter is done, either with cold and moist medicines, as with the juices and waters of

Houſlike, Lettice, Henbane, Nightſhad, and the like, or elſe with cold and dry things, ſuch as are *bale armeni Terra ſigillat*, Ceruſe, Potters Clay, and ſuch like plaſters, which doe ſhut the pores, ſo that the outward heat which is left by the fire, may be choaked and quenched like unto fire, which is ſhut into a cloſe place.

The other way of quenching hot humours conſiſteth in this, that the outward heate and ſharpe humours be reſolved and ſcattered, even as we ſee coles to be quenched if they bee ſcattered hither and thither, which is done by hot Medicines, as we will ſhew in the next Chapter, it ſhall not bee needfull to enquire what Method is to be uſed.

They which doe follow the firſt Method, doe think themſelves to be ſufficiently authorized with this generall rule of *Hipocrates*. Contrary Medicines are made of contrary things.

For ſeeing Combutions is a hot accident, wee ought to cure it with his contrary, which is with cold things, which may extinguish the hot & burning humours left by the fire: I do confeſſe thoſe ſentences of Phyſitians to be very true, but in my opinion refrigeration in Camb. ought to be done by abating: for it is fitly rejected from the firſt Method of curing, ſeeing there do many times ariſe divers Symtomes, as hereafter we will ſhew, for it doth not ſuffice only to prevent corrupt humours, but chiefly many other accidents, as griefe, retraction and roughneſſe of the ſkin, and inviron
of

of the pores, which doe all require hot remedies. But that these things bee well understood, let us looke unto the properties of heat, the which *Hippocrates* doth thus describe, heate is biting in Vicers, hardneth the skin, causeth intollerable paine, it ingendreth vehement feares, Convulsions, and distentions. And *Galen* saith, that the substance proper to draw together and thicken, is alwayes proper to cold, which is knowne to be in oyle, fat, and other things which by their coldnesse doe thicken and harden; in which it is shewn, that cold things are plainly adversaries to Combustions, and do cause divers and naughty accidents, for the skin being contracted and hardned by the fire, by the much use of cold Medicines is hardned, and paine is increased; hereby humours do gather together which are not onely retained under the hard skin, but by the use of cold Medicines is forced downwards, and there they doe more heat, hereby cometh inflammation, impostimation, and divers times Gangrene, for the humour included, because it wanteth breathing, it presently putrieth, as *Galen* witnesseth; or because the heat which chanced whilst it is included in the affected part, hath dried up the the radicall moisture, in which the naturall heat consisteth, as we have shewed in our Tract of *Gangrena*; For this cause *Hippocrates* admonisheth that it is not good to turn *Erisipilas* from the outward parts unto the inward, and there oftentimes doth follow (if great burnings be dressed with cold
Medi-

Medicines.) Herpes or knawing wilde-fire for the Humour being included under the Skinne doth breed a certaine sharpenesse and malignity. *Anno 1594.* there came unto mee a certaine young man from *Colin* whom Hirpes or wild fire had invaded his whole legge from the foot unto the thigh, by reason of a simple Combustion: By what method, and with what Medicines wee cured the same the Reader may understand by my observations Chirurgicall.

Therefore when I did consider, that as coales when they are carefully covered under the ashes doe retaine their heat a long time; so corrupt humours, which in Combustions doe flow to the affected place, are by the use of cold medicines retained; I have therefore more rather chosen to my selfe another Method, which hitherto I have used with great benefit to the Patient; For even as coals doe quickly squenck if they are scattered about; so hot Medicines doe quickly coole (yet by evacuation) by discussing and extracting corrupt humours, as *Galen* witnesseth.

For as heat (as *Hipocrates* witnesseth) softneth the skin, extenuareth, easeth paine, mittigateth Convulsions, and bringeth Vlcers to supperation: So such kind of Medicines are applyed to those parts which are molested with blood, (but they must be those which doe moderately beat) to make thin the humours, and to dilate the passages and pores: The same *Galen* also writeth, for cold

But

But that there might be a right and Methodical curation of Combustions instituted, all effects and accidents of burnings are to be diligently examined and looked unto, so that remedies may be changed and applyed and according to their natures; but first of all, because paine followeth, by reason of the solution of continuity and sudden mutation which violently draweth humours and blood from the body. It is necessary to use repellent Medicines, to wit, defensives, and clouts wet in Vinegar and water lest such like humours and blood do follow to the offended place: Then let there be used and observed, dyet, purgations, blood-letting, cupping, and other revultions, that the humours and blood may be drawne and evacuated to the other part, as appertaining to Topicks; in the first species of Combustions, if pustels be not risen, let the corrupt and sharpe humours be drawn forth with an Ointment made of Onions and the like, but if the skin be drawne together and hardned, wee ought to use all dilligence that it be softned and made red, which ought to be done with Medicines which are hot and moist, as the Chapters following we will declare at length.



CHAP. VI.

The Curations of the first degree of Combustions.

THe first and chiefe worke which is required in Combustions, is, that the Chirugion doe prevent the rising of pustels; for if he can do that the Patient need not feare any further molestion; Therefore if any one be burnt with fire, water, hot Oyle, or any such like thing: If the Combustion be light, presently let the place be madified with water or spettle, and then held to fire as long as may be suffered, or let the burnt place be dipped in hot water, or if that will not be conveniently done, let a sponge or clout be wrung out in hot water, and applyed to the place, for that outward heat doth draw unto it *Empyruma*, that is, heat left by the fire in the burned part, as *Aristotle* and experience teacheth; for as a Scorpion being applyed to the bite of a Scorpion doth draw to it his proper poyson; so doth heate draw heat: hereby Onions being mixed in a mortar with a little Salt and applyed to the burnt place, doth draw forth the corrupt humours, and suffereth not the pustels to arise; it may be spread on little pleggets and applyed,

plied, untill the whole burnt place bee covered. Also this following Oyntment doth violently draw forth corrupt humours, and will not suffer the pustels to arise.

Rx. *Cape Cruda* ℥. i. β.

Salis.

Saponis ulbi veneti, ana. ℥. β.

Let them be mixed in a Morter, and make an Oyntment with Oyle of Roses and sweet Almons. Anno 1604. as my beloved wife was boyling of New Wine in a great skellet, and stirring it with a spatter, she unadvisedly thrust her hand unto the wrist into the boyling wine, when it was boyled even unto the very height and thicknesse, whereby there presently arose a vehement paine, not onely in the hand, but also in the whole arme, the wine being washed away with hot water, wee applyed the Oyntment lately prescribed (which as then was most fittest unto my hand) I anointed the whole arme with Oile of Roses, and rowled about Rowlers dipped in water and Vinegar, and did oftentimes renew them all. Thus (by Gods favour) of so great a Combustion there followed no ulceration of the skin, but onely two pustels, the one in her thumbe, the other by her middle finger, which with a little trouble, vvith *Vnguentum Basilicon* vvere cured.

Now in uniuersall Combustions proceed as is declared in the following Example. In the yeare 1605. The Servant of one Mr. *Ioachim*, a Dyer,

by chance fell into a great Chaldron full of hot Die, from whence there followed a Combustion of the whole body ; but because the Die was not very much hot, those parts were chiefly burnt which clave unto the dregs of the Die in the bottom of the Chaldron, in which the heat was longest contained; for the hands and face were onely burnt ; wherefore I being sent for, I anointed the whole body, the face onely accepted, with this following Ointment.

Rx *Saponis liquida* ℥ β.

Capa cruda ℥ ij.

Salis ℥. i β.

Oleum de v tellis onorum ℥ j.

Amigdal. dulc. ana. ℥ iii.

Masilag. Sem. Cydon ℥ iii.

Mixe them and make an Ointment.

For the eyes I used this Anodine Colerium as followeth :

Rx *Aque Rosar.* ℥ iii.

Aque Plantag. ℥ i

Sem. Cydonor &

Foenogreci, ana. ℥ β misce.

Let them remaine upon hot ashes, the space of an houre, then let them be strained, and adde thereto a little womans Milke, and drop it hot into the eyes, unto the other parts of the Face I applied an Ointment of new Wine boyled to the third part, which was solid and thick, lest it should flow unto the eyes and hurt them : The description whereof is thus :

Rx *Gum.*

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Rx Gum. Elemni 3 i.

Oleum de vit. ovor,

Rosar. ana. 3 iii.

Saponis Albi & veneti 3 ii.

Let the gums be dissolved with the Oyle, and all diligently mixed in a Morter, & make an Ointment, which being spread upou a linnen cloath, apply it all over the Face, and every foure houres renew the emplaster, but the Colery every houres; Also the same day, the belly being first emptied by a suppositiō, I opened the Basilica veyne in the right arme, and took forth ten ounces of blood for he was a strange and plethoricke man, and the day following I administred this purgation following.

Rx Electuar. Diacatho, 3 vi.

Ele. de Succo rosar. 3 ii.

Syrupi Resat, solut. 3. i.

With water of Cicorie and Buglosse make a portion, give it in the morning fasting, observing a good dyet. The next and third day I anointed the whole body with the foresaid Ointment, and to the face I applyed the Ointment which I prescribed for the same purpose, and in the eyes I often dropped the Colerium, but because that in divers places, especially in the veynes the Combustions penetrated deep, wee followed the same Method of curing which we have declared in the 7 and 8 Chapt. And by these remedies (by the Grace of God) he was perfectly cured of this Combustion in 14. dayes.

Fur.

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Furthermore the Ointment of Onions doth little or nothing profit to Combustions of the face, for by it the eyes may suffer much hurt and damage; therefore this following Ointment is used in place of the other.

Rx. *Saponis Veneti* ℥. i.
olei Rosæ &
Amigdalæ dulcium. ana. ℥. β.
misce

Make an Ointment in a Morter, adding a little quantitie of the Musilage of *Cydon* seeds extracted with Rose-water; It is to be noted, that although the wine thin is not to be rejected in Combustions, yet to the face we ought by no meanes to apply it so, for it moistneth, and penetrateth, and offendeth the eyes; wherefore wee ought to take great heed that this foresaid Ointment be not too liquid: Many, that they may keepe the pustels from rising, doe presently apply clouts dipped in the gum of the Juniper Tree, others doe apply pleggers of Larde about the burnt place.

Paulus Egineta doth counsell to dip doubled clothes in Brine, and apply them in Lye and water, wherein Lime hath been quenched, is good for the same purpose; but these kinde of Medicines are to be often repeated and applyed lukewarme, lest the Linnen being dry should raise paine in the affected part. If the face be burnt with

Gum

Gunpowper, and that any of the graines or corne of the powder doe sticke in the skin, presently it must be gotten forth with a Needle or some other sharpe Instrument, afterwards heed is to be taken that pustels do not rise; by this meanes the powder which is in the skin may easily be drawne forth, and the skin mundified, but if a Chirurgion be not sent for in the beginning, and that the skin be already cicumtrised, it is necessary that the skin be againe blistered, which may be fitly done with this following Ointment.

Rx. *Cantharidum num. vj.*

Fermenti ℥. β.

Mix them in a Morter with a drop or two of Vinegar, of the which make a little plaister and apply upon the spots, but you ought to take great heed that this Ointment come not unto the eyes, when the pustels doe first arise, let them be cut with cizors, then let the powder be taken away either with a Needle or some other sharpe instrument, and then apply this following Ointment.

Rx. *Butiri sine sale ℥. i.*

Vng. Basilic. olei Lillior albor.

De vitell, ovor, ana. ℥. ii.

misce Fiat Vnguentum.

As often as the Chirurgion shall handle the sore, he shall diligently take notice how the blacknesse of the powder spendeth away, and shall wash it either with a Decoction of Fœnegreeke or Melilot flowers, afterwards apply the said Ointment
and

and so proceed untill the Ulcer bee sufficiently mundified. I have in this Cause used the powder of precipitate, to the profit of the Patient, but to ease paine apply this Anodine Medicine about the fore.

Rx *Olei migdal. dulc.*

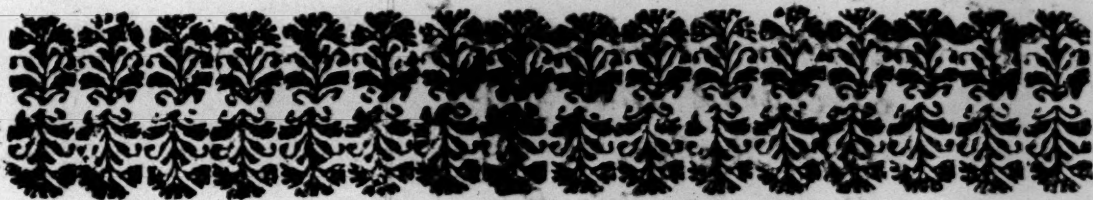
Rosacei

Cere alba ana. ʒ. j.

Dissolve and mix them, and then adde *Camphire* ʒ j. the musilage of *Cydon* seeds a little, mix them and make an Ointment; but if the powder bee blowne into the eyes, let them bee washed with womans Milke or Rose water warme, but especially we ought to use all diligence, that the flowing of humours be prevented, and paine be eased, as we have declared in the Eleventh Chapter.

Now if the powder be not blown into the skin but that the skin be onely burnt with the flame of the powder, then presently apply the afore-written Ointment of Sope, Oyle of Sweet Almonds and Roses. In the meane time whilst the effect is thus handled, the offensive humours and blood are to be diminished and drawne out by other places, lest by reason of the solution of continuity they should flow to the hurted part, and should cause inflammations and other dangerous symtomes, which may be fitly done by purgation, blood-letting, cupping, as we will shew in their proper place,

CHAP.



CHAP. VII.

*The Curation of the second Degree of
Combustions.*

FVrthermore, if the Combustion do penetrate more deep, so that not only pustels or blisters are raised, but that also the skin be burnt dead and contracted, then neither Onions, sope, salt, neither any such kinde of Medicines are to be applyed, much lesse those which are before said to be cold and dry, but those which doe mollifie the skin and cause rednesse, are to be used, for they are of temperature hot and moist, therefore proceed after this manner.

First of all let the blisters be all cut with cizors whereby the hot and sharpe water may flow forth and wheresoever the upper skin is separated, let it be peeced off, lest matter should gather together under it, and because humours and blood doe presently flow to the affected place, it is needfull to prevent them with defensives; therefore apply one of the following defensives, about the breadth of the palme of ones hand upon the burnt place:

D

R^e Pul.

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Rx *Pul. boli armeni. Sanguis draco.*
Gallar. Croci martis.
Accatiae ana. ʒ. β.
Olei Rosar. ʒ. iij.
Cera nova ʒ. i. β.

Make an Ointment according to Art, adding a little Vinegar, or else

Rx *Farina herdei. Argilla fornac. ana. ʒ. ij.*

Let them bee boiled with Vinegar and water to the forme of a Cataplasme, and in the end mixe therewith the whites of two Egges. This defensive is to be reiterated two or three times every day, lest it should dry upon the affected place, and should cause paine.

But to the places round about, apply this following Ointment.

Rx *Vngunt. Basilicon. ʒ. i.*
Ol. Rosar. & billior. albor. ana. ʒ. β.
Vitel. ovor. nam. ij. misce.

This following Ointment doth also very much profit for Combustions, it easeth paine, sofineth the skin, and resolvethe the Humours flowing to the part :

Rx *Butyri Sine sale.*
Pinguedinis gallinae recent.
Ana, ʒ. j. Cera nova.
Ol. Lilior, albor, ana, ʒ. β.

Let them be dissolved together, and afterwards adde unto them

Croci ʒ. j. Muselag, Sem, Cydon, ʒ. j.

Let

Let them be mixed in a mortar, and make an ointment; If the paine be so vehement, that the sicke can very little take his rest, then mixe with the said foresaid ointment *Opii dissoluti* \mathfrak{z} β , or else

Rx Butiri recent, \mathfrak{z} ii. *Ol. Amigdalæ, dulc. de vitellis ovor. ana.* \mathfrak{z} β *Crocipii ana* \mathfrak{z} β *Caphura* \mathfrak{z} i. *Muselag. sem. cidon.* \mathfrak{z} i. *misce.*
make an Ointment and apply it.

The Defensive being applyed, and one of the foresaid Ointments, the affected part is to be rowled in rowlers madified in water and Vinegar, and if the offended part be the arme or the leg, begin at the infirme part, for by this meanes the humours are repressed, which are prepared to flow unto the hurt part; but if the Combustion be any part that may not be rowled, apply linnen clothes, madified in water and vinegar 3. or 4. times a day, or also water wherein Colworts have bin infused (which should be of vinegar, water and salt) in which linnen clothes be wet and applyed, it doth mightily repress the Humours, easeth paine, and is an enemy to corrupt Humours; notwithstanding in the Face such kinde of Medicines are not be applyed by reason of the eyes, the skin being softned, and sufficiently rubified, divers doe apply drying Medicines, as *Vngunt ex calce tota Diarompholigos Album Rasu*, and the like, but because such drying Medicines doe contract the skinne, and cause filthy skarres, I doe not allow of the use of them, therefore I use emolent Medicines to the end of the

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Also I prepare an Ointment for all Combustions
whatsoever, after this manner :

Rx. Butiri recent & tot. in aqua.

*Rosar. ℥. iij. Ol. violatii
de vitel. ovor.*

Amigdalas dalc. ana. ℥. β.

Farina hordii ℥. i. β.

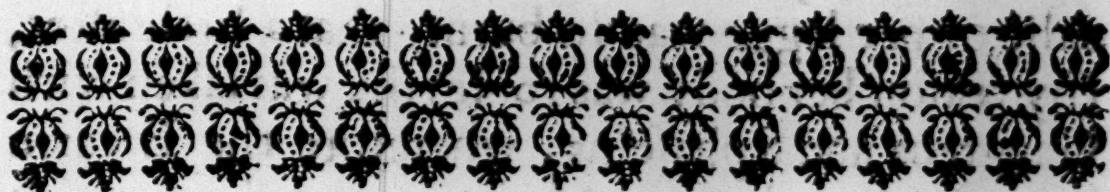
Croci ℥. j.

Musilag. Sem. Cydon ℥. i.

Cera q. S. Make an Ointment in a mortar.

This Ointment mollifieth, easeth paine, and by
little and little induceth a Cicatrice ; but because
Combustions, especially those which are in the
upper part of the skin flame with vehement sence,
the Chirurgions ought to have a great care that
they do gently cleanse them ; I, lest I should cause
paine by cleansing of Vlcers, doe cover the burnt
part about with fine linnen cloth, as with Cam-
bricke or Lawne, and I remove it not untill the
Vlcer be whole, by this cloth the matter may ea-
sily flow forth, and the vertue of the Medicines
may come unto the Vlcer ; now whilst that the
Vlcer is a curing, dyet, purgation of humours, and
Phlebotomy is not to be neglected ; let the Pati-
ent abstaine from all things that are vehement, salt,
hot and sharpe, and those things which are hard of
digestion, let him use pottage made of flesh new
killed, in the which Sorrill, Endive, Lettice and
Borage hath been boyled ; let his drinke be phti-
san or Ale not very strong ; if the body bee full,
open

open the Basilica or Mediana veyne, and take out as much blood as strength will suffer; if it bee needfull for him to purge, let him purge according to the nature of the humour predominating, concerning which it were good to have the opinion of a Learned Physitian; if the Combustion bee in the face, it were good to apply Cupping Glasses to the shoulders, that the blood and humours may be drawne backe.



CHAP. VIII.

The Cure of the third and last degree of Combustions.

THis third and last Degree of Combustions is very dangerous, for that very often it ingendreth Gangrena and Sphacetus; For first by reason of the vehement heat, the Radicall moisture and naturall heat is dryed up: Secondly, the skin Musculous, Flesh, Veynes, Arteries, &c. be dried and drawne together, so that the blood cannot flow to the offended part: Thirdly, the Humours and blood, by reason of the Solution of Continuitie and paine doe gather together, and increase the
burning

burning heat, hereby by reason of want of nourishment, and choaking of the naturall heat, the affected part mortifieth, as is declared in our Treatise of Gangrena and Sphacelus.

In the yeare of our Lord 1592. there lighted into my hands a very honest Matron in *Hilden*, who being weary, by reason of her domesticall businesse, and sitting by the fire alone, of a sudden fell into a swoond downe to the hearth, and her right legge lay on the burning coales, whereby the calfe of her legge was so burnt, that a little after, (by reason her body was foule) she was taken with Gangrena and Sphacelus, wherefore the Escarre being separated, and Medicines applyed which pertain to Gangrena, she recovered her health:

First of all therefore, the blisters are to be cut, and the water that floweth by reason of the Combustion, to be dried with a clout or sponge; then the Escarre is to be separated, or at the least to be cut away almost as close as the flesh. whereby the humour which is retained under the hard crust may flow forth, the Medicines may enter, and whatsoever is indurated and hardened by reason of the heat may softned, the Escarre ought to be separated the first or second day before the part be inflamed, and in the beginning this following Ointment is to be applyed.

℞ Butir. rec, et tot. in aquaros. ʒ iii.

Unguent Basilicon ʒ. i. β

Ol. Lilior. alior. Amigda. dulc. ana. ʒ β

Vitel. uniusovi. misce et appli.

After-

Afterwards doubled clothes wet in this following Emulsion, is to be applyed hot, for it easeth paine mollifieth and stayeth flux of humours.

Rx. *Medulla sem. Cucurb.* ʒ ii.

Sem. Cidon, Foenograna. ʒ i.

Let them be mixed in a mortar and strained out with ℥vj. of pure water, and make an Emulsion, in the which dissolve *Saponis veneti albi* ʒ β *Capura* ʒ j. But if the Combustion be in the Face, the Sope is not to be used by reason of the eyes, but in the place adde the waters of Roses and Plantaine. Defensives also in the beginning are to be applyed, and Rowlers wet in water and vinegar, that the violent flux of humours may be stayed; But if the affected part be inflamed, and chiefly if the Veynes, Arteries, are contracted by the fire, then Defensives are not so well approved of, except they have some power to resolve, viz. such as are these, Beane Flower, Flower of Lupins, of wheat, and the powder of Camomile Flower, &c. mix them, let the Patient, and let the body be purged with fit purges, according to the nature of the humour predominating; also open a Veyne and apply Cupping glasses, concerning which take the counsell of a Physitian.

When the Flowing of Humours and blood is stayed, then Defensives are left off, whereby the spirits and nutriment may the better passe to the affected part, and to divide and separate the Escarre; Wherefore the learned Chirurgeon which

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which is the Hand-maid of Nature, ought every day, as much as possibly he can, without paine to seperate some of the Escarre, and afterward let him apply the forewritten Ointment of Sweet Butter thereto: Also this following fomentation hath no little power to ease paine, mollifie the skin, and helpe digestion.

Rx *Radicum albeæ* ʒ ij.

Sem. Cidonor.

Foenograci ana. ʒ β.

Flor. Chamom.

Meliloti ana. M. ʒ.

Let them be boyled in water, or if there be vehement paine, in Milke; then wet a Sponge therein and apply it hot. and afterwards mix a little Oyle of white Lillies, but if the burne shall be so great then it groweth to Gangrena, or Sphacetus, then proceed according to the cure of Gangrena.

But because these kinds of Combustions, of the which we have spoken, doe oftentimes grow to a Gangrene, therefore they ought to be carefully and judiciously handled, and alwayes something ought to be applyed, which may resist corruption. In Children divers times doe happen Combustions of the hands and feet, in the which the extremities of the fingers and toes are cleane burnt off; In these, great diligence is to bee used, that that which is so burnt may be quickly separated, lest the corruption doe invade the sound parts; therefore if the flesh and the bone be so burnt, that the
joynt

joynt may be saved, the bone in the same joynt is to be separated with a Raizor, not with cizors, as some would have it; if the Joint it selfe shall be also affected, let the skin behind the joynt be taken away with a Raizor, but the bone with a little Saw; but why this abscision ought not to be done with Inscision knives wee have shewed in a Tract De Gangrena, in the which also is shewed the manner of cutting off of fingers.

As soone as ever the Elcarre is separated, it is good first to mundifie the Vlcer, wherefore if it shall be rotten and stinking, the Patient strong, and the affected part not very sencible, in such causes I was wont to apply *Egyptialum*, but if the Patient bee delicate, and the affected part very sencible, then mix with the foresaid Ointment Hony of Roses, also the powder of precipitate washed in Rose water, is an excellent Medicine against all rotten Vlcers, or else

Rx Pulueris Precipitati
Radix Aristoloch. rot.
Parina hordei ana. ʒ i.

With Hony or Roses, and a little Turpentine make an Ointment.

If the Combustion be in the head or face, adde a little *Gumma Lemnia* dissolved in Oyle of Roses, also a mundificative of the juice of Smallege doth very much cleanse putrid Vlcers when it is mixed with *Mel. Rosarum* and *Aquavita* and applyed; Also these Medicines spread upon Cotten or fine
 E Lint,

Lint, and applyed to Vlcers, is profitable, or fine Linnen cloths doubled, or let the part affected be rowled in a soft sponge, for these linnen clothes and sponge doe draw thin humours, which do hinder consolidation; to Vlcers already mundified, it is best to use Incarnatives, such as are *Vngunt Aurtium Nicotiane*, or this following powder:

Rx *Pulvis Aroës. Sarcocolla.*
Myrrhe. ana. 3 ii. Miso. f. pul.

This following Viscus doth mightily mundifie and incarnateth all sorts of corrup ulcers:

Rx *Herbar. Centaurii et Hiperici.*
Cum toto, Dsapensia, Alchimella,
Bete Silvest.
Folior. arneglossa maioris,
Ana M. iiij. Radic. tormentille,
Aristolobie longe ana. 3. iiij.

Let them all be cut and beaten together, after let them be put in a Glasse vessell and powre Wine thereon untill it doe onely swim, and set it in the Sunne the space of three dayes, then let it be boiled with a slender fire, untill the third part be consumed, and when it is strained with a strange expression; in a Glasen Limbecke and in Balneo Mariae make a Viscus or Bird-lime; Then cause a Cicatrix, but not with those things which doe vehemently dry, as Chirurgions use to doe in other Vlcers, for vehement dryers applyed unto Burnes doe cause a rough and filthy scarre; Therefore apply this following Ointment:

Rx *Em.*

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R \acute{e} *Emplast. Palmei* \mathfrak{z} i.

Pinguid. Gall. Et anser ana. \mathfrak{z} β .

Let them be dissolved together, and then mixe with them

Alumines Vsti, Saturni Calcinati,

Lythargirii aurei, Lapidis Calum. naris.

And in a Leaden Morter make an Ointment adding of the Musilage of Cydon seedes and Foenogreeke, as much as is expedient, with the which make an Ointment most excellent for all Combu-
stions whatsoever; Also I have used an Ointment of Aliblaste in this cause with great profit, whose description is as followeth:

R \acute{e} *Lapidis Alablastratis Calc.* \mathfrak{z} i. β .

Pumicis albi Calcionat. \mathfrak{z} β

Make them into a very small powder, afterwards

R \acute{e} *Cera alba*

Ceri Cervini

Ol. Amigdal. Dulc.

Lilior Albor ana. \mathfrak{z} i.

Ol. de. vitell. ovor. \mathfrak{z} β .

Make an Ointment according to Art, this Ointment mollifieth, ease the paine, and produceth a faire Cicatrix.

If the Combustion be in the eye-browes lippes or in the fingers, there ought to be great care taken that these parts be not contracted and fastned backwards rowled in a soft sponge; therefore Linnen cloathes or Lint, or thin Leaden Plates finely beat and used, are to be put betweene the

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parts where conglutination is feared: In great Combustions which are in the great vessels of the Veynes and Arteries where Atrophia is feared, by reason of little nourishment, all the affected part are the first dayes to be anointed with Oile of Roses, to repress the humours, and afterwards with this following Ointment.

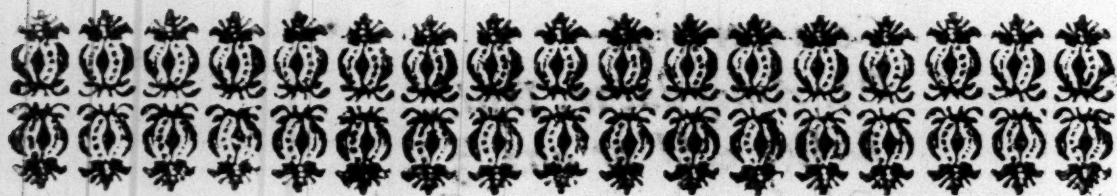
℞ *Cucci lumbricor* ℥ ij.

Pinguid. humane

Callina. Vrsiana. ℥ i.

AquaVita ℥ ii. *misce.*

This Ointment mollifieth, resolveth, corroborateth, and openeth, if any veynes or arteries, by reason of the violence of the fire, be contracted or stopped; and it stayeth Atrophia.



CHAP. IX.

Of the Combustions of the Eyes.

BY how much the more noble one part of our Body is more then the other, so much the more care is to be taken thereof when it is ill affected; therefore because the Eye, of all members

is.

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is the most Noblest and very sencible, it doth require a certaine particular cure: First of all therefore, the Chirurgion shall endeavour himselfe in this whole worke, that he easeth paine, and stayeth the flux of Humours; wherefore presently from the beginning let him apply defensives to the temples, and run all the pustles or blisters, that the sharpe and hot water may flow forth, but drop in to the eyes now and then womans milke mixed with Rose water luke warme, in which let a little Saffron be macerated; Also doubled clothes macified in this Milke should be applyed, and let it be reiterated as often as it is dry; Or else

Rx Aqua. Rosace ʒ iii.
Sem. Cydonior. & Fœnogr. ana. ʒ β.
Croci Integri. ʒ β. misce.

Let them remaine in insutione the space of 4. houres, then let them be strained, to this Mutilage mixe a little womans Milke, and then let it be dropped warme into the eyes, and let them be applyed thereto with doubled clothes warme; if there be any great paine, then adde thereto a grain or two of Opium dissolved in Rose water, also Pigeons blood being dropped warme into the eyes, easeth paine, then apply this following Cataplasma:

Rx Pulpa malor. dulc. sub. prunis decoct. ʒ β.
Farine Fœnogr. et Hordei ana. ʒ β.

Boyle them in Milke to the forme of a Poulitice, and in the end mix thereto Croci ʒ β. vitellum u-

(40)

mus ovi, with a little Oyle of Roses, and let it be applyed hot, but round about the eyes, if the burn be but light, some Ointment of sope may be applyed, which must be of a reasonable hard body lest it offendeth the eyes.

This processe is not to be changed unlesse the Patient be quite free from inflammation and pain, after that apply this following Colerium, for the better exiccation and corroboration of the sight.

℞ *Aquar. Euphrasia,*
Foeniculi,
Rosarum ana. ℥ i.
Tutie Preparat,
Sief. Sive opio ana. ℥. i.
Misce fiat Colerium.

Now know (gentle Reader) that a Colery, into the which womans Milke entreth, is in the Summer every day to be changed, but in the Winter every other day, for the Milke quickly turneth and waxeth sowre, and then it easeth not paine, but dryeth; for this cause, those sharp things which we have prescribed in other burnings, as Lye, brine &c. are not be applyed to burnes in the face, Stupifactive Medicines are to be resisted as much as possible may be, except great paine be present, for they (by reason of their great coldnesse) do thicken the Humours and visible spirits of the eyes; but if the skin shall be hardned to the eyes, it may be softened and made supple with the foresaid Ointments, but gear care is to be had that the Ointment

ment or fat enter not into the eyes, for that stireth paine; In the meane time whilst the skin is molified with the aforesaid Ointments and Oyles, let the Colery be dropped in, and the Cataplasme be applyed, as we have already spoken of.

Generally let the Patient use a sparing dyet, let him abstaine from all hot things, salt things, Ginger, Pepper, Cloves, Garlicke, Onyons, Radishes, and the like: And also from all things that are hard of Digestion, also Wine and strong Ale doth much hurt, let his drinke be phtisan, in the which Coriander seeds prepared, and Anniseeds have bin boyled; If the Patient by reason of his age cannot abstaine from Wine, let him drink white wine that is not very strong; In his pottage let those herbes bee boyled which doe coole, and that doe purge Choller, as are these, Sorrill, Borage, Cicory, Chernill, the Roots of Parsely, Fennel Mariory, Rosemary, and Eye-bright: Let the patient take a little Syrup Cydonior, Symplex or old Conserve of Roses, that the elevation of vapors unto the head may be hindered, if he be very thirsty, let him use his decoction of Parley, in the which dissolve the Sirrup of the Juice of Sorrell, Limons or Pomgranuts, also Confections of cherries, Barberies, and such like are convenient.

Furthermore before I make an end of this Chapter for the benefit and further experience of the Reader I will declare an excellent Example of Combustions.

There

There was a Maiden childe, of the age of two yeares or thereabouts, which was the daughter of Mr. *Samuel Gaillard* a most vigilant Schoole-master of Neocoments, and my most Reverend God-father, whom by chance sitting by the fire, fell among the burning coales, whereby not onely her forehead about the eyes, but almost all her whole face, especially in one place was grievously burnt, I being called iust at the instant, I applyed this following ointment upon the whole face in the form of a Plaister.

Rx *Saponis Veneti* ʒ i.
Ol. de vitel. ovor. et
Amigdal. dulc. ana, ʒ ii.
Gumi elemi dissolut. Cum
Oleis ʒ i. *misce.*

Make an Ointment adding a little of the Musilage of Cydon seeds.

But alwayes into the Eyes drop a little of the Colerium made of womans Milke and Rose water and apply it also with fine linnen clothes, the first I renewed the Plaister every foure houres, hereby the greatest part of currupt humours were culled forth, and the second day I prescribed him pottage made of new killed Flesh, in the which was boyled the powder of the Root of *Mechoacan* ʒ i. and to the affected place I applyed this Oyntment following :

Rx *Ol. de vitellis ovorum,*
Ol. Amigdalar. dulc.

Pingues.

(43.)

Pinguid. vrsi & Pinguedinis humana ana ʒ β.

Gum Elami dissolut cum oleis ʒ ii.

Cera nova ʒ i. Croci ʒ i. misce.

Make an Ointment, with the which I almost finished the Cure, except that in the end of the Cure I mixed with the foresaid Ointment a little of the Flower of Lentils, and I anointed the whole burnt part with this following Emolent Oyntment :

R Gum Elemmi ʒ β. Ol. de vital ouor &

Lilior albor ana ʒ β. Pinguid. humana ʒ ii. misce.

In the meane time whilst that the skin is mollifying, I use to extend it with both my hands, like as the Felmongers doe there skins when they tan them up; and thus by Gods favour she was cured, and there was no signe of a Combustion left, except it were one little one in her upper lippe, in the which place, by reason of the Childs unpatience I could not make the Medicine stay.



CHAP. X.

Of Combustions of the Groynes.

THe Groynes, because they are rare, laxe, humid members, and apt to fluxe of humours, whereby they doe easily putrifie; They doe also
F require

require a particular care and method of curing : First of all therefore (because by reason of the vicinity of the Emunſtories, humours doe quickly flow unto them) Defensives are to be applyed to the bottome of the belly, upon the Combustion, also cut a veyne in the Cubide, and if it may conveniently be done, provoke vomitting ; but if it be not convenient, let the Patient be purged downwards, and prescribe him a slender dyet ; let him abstaine from strong Wine, and from meats hot and sharpe, as we have shewed in the former chapter ; because the Groynes are Members rare, laxe, humid. and apt to corruption ; therefore if there be no blisters risen, presently apply some Oyntment prepared of sope and Onions, but if they are risen, let them be cut, whereby the sharpe water may flow forth, then apply this following Ointment.

Rx *Vngunt rosati* ʒ i. β. *Ol. de vitel. ovor. et Amigdal. dulc. ana.* ʒ β.

Dissolve them, and then mixe thereto

Mirrha Aloes ana. ʒ i.

Mixe them and apply them with Linnen clothes, and then let the whole part be covered, with this following Cataplasme :

Rx *Farina hordii et Fabar. ana.* ʒ iii.

Pulv. Rosar. rubar. ʒ β.

With a little Vinegar and Honey make a Powlrice, and apply it hot : But if the Combustion bee great, so that it maketh a hard crust, then let it be
sepe-

seperated by little and little, with an Incision knife or at the least scarified in divers places, then apply this following Ointment to cause the escar to fall.

Rx Superioris unguent ʒ ij. Pul. Scordii ʒ i.

Vnguent. Egiptiaci ʒ ij.

More or lesse according to the quantity of the putrifaction and the strength and weaknesse of the Patient, and apply it on linnen clothes afterwards.

Rx Farina lupinor. Fabarum. Lollii ana. ʒ i. β.

Let them be boiled in Barbers lye, and then mixe to them. *Pul. Scordii. Aloes. Mirrha ana. ʒ β.*

Mix them and make a Powltice, and apply it hot, after the Escar is fallen, mundifie, incarnate, and cicatrice the Vicer, as wee have declared in our 8. Chapter.



CHAP. XI.

Of the Combustions of the Joynts.

IN Combustions of the Ioynts defensives ought to be applyed, the body purged, &c. Medicines made of sope, Onions, &c. are naught; wherefore anoint the whole member twice a day with Oyle of wormes, Mans greace, Hens greace, with an Ointment of Marsh, Mallowes, and the like. The rest is to be learned in the former Chapters.



CHAP. XII.

Of Paine, and the Cure thereof.

PAyne is a grievous Symtome as well in Combustions as in all other effects whatsoever, for it scattereth and consumeth the vitall spirits, and causeth unquietnesse and Feavers, hereby followeth a defect of the minde, it draweth a flux of humors, and thereby arise Inflammations, Convulsions, and other grievous symptoms, therefore it is to be eased as much as possible may be, now the generall curing of paine, is to take away the cause thereof.

But because that in Combustions there are two severall causes, to wit, sudden alteration, and solution of continuity, there shall be a two-fold scope of Curing : First, that the corrupt humours caused by the fire be drawne forth, and the part affected refrigerated and brought to his proper temper, as we have sufficiently declared before.

Secondly, that whatsoere be disjoyned and burnt be united and consolidated; but because the corrupt humours cannot be drawne forth, much lesse the blisters and ulcer cured, except the hard and contracted skin be first molified and made supple: Therefore it is necessary that the Chirurgion doe
bend

bend his whole study, to supple and soften the skin, with those hot and moist Medicines which are before rehearsed, whereby those sharpe and subtile humours may be exhallated and drawne by the pores of the skin; but although such kinde of Medicines are hot, yet they coole, notwithstanding by accident, that is as *Galen* witnesseth. by resolving and scattering sharpe humours; therefore if there be great paine, and that it be not eased with those Medicines which we have prescribed in our 7 and 8. Chapters (the body being first purged, and a veyne opened, if age and other things will permit) apply this following Foment.

Rx *Radic. Althea* ʒ i. *Florum Chamomil, Meloloti Rosarum Absynthii ana.* M. ʒ. *Sem. Foenog.*

Anethi ana. ʒ ʒ. *Ol. Violar.* ʒ iij.

Let them be boyled in Milke, in the which wring out a sponge or else doubled clothes, and apply it oftentimes to the painfull place, hot as it may bee suffered. This following Powltice is also very good, and easeth paine marvellously.

Rx *Micarum panis Albi* ʒ ʒ.

Boyle it in Milke to the forme of a Powltice, then mix thereto Oyle of sweet Almonds, new Butter of each ʒ i. Oile of Egges ʒ ʒ. Saffron ʒ i. the yeolke of one Egg, make therewith a Cataplasme and apply it hot three or foure times a day, but first foment the place affected with the following foment; if you have any mans greace in a readines, mix it therewith, for it is a singular Anodine.

Also apply Defensives, and prescribe a Dyet, and let the body be purged according to the nature of the Humour predominating; also open a veyne and apply Cupping-glasses; if the paine be not eased with these things, proceed to stupifactive Medicines, for it will not be in vaine, because they are cold, even in the fourth degree, and being done with heedfulnesse and wisdom, they are not dangerous, especially in the outward parts, but begin with those which are gentle.



CHAP. XIII.

Of the imbecillity of the Sight.

SEeing that divers times after Combustions there followeth an imbecillity of the sight, and a great rheume in the Eyes, therefore it will be necessary to declare how they may be holpen, that they grow not into *Lachrimale Fistilo. S. Ophthalmia*, and to a pin and webbe, or else cleane perish the sight: Wherefore the Cure shall be performed by three intentions, that is, by Dyet, purgation, and stupifactive Medicines; and because that in Rheumes of the Eyes the Braine sendeth forth Humours and the eyes receive them, it is necessary that they be not altogether hindered, lest naughty
Humours

Humours should ingender in the Body and the Braine, but rather that those which are already ingendred and flow to the eyes, may be dryed and drawne backwards, likewise the eyes are to be defended lest they sustaine a fluxe.

There are three things to be observed in the administration of dyet, to wit, the quantity, the quality, and the use ; For first all excesse, as well of meat as of drinke is to be avoided ; Secondly, because the flux of the Eyes is alwayes caused by superfluity of humours. The third thing to be observed, is, that the Patient never eate, except the meat be first well concocted, that he have a naturall appetite thereto, and that he doe avoid multitude of meats at one meale, which differ in substance and in quality, let his bread be of the best wheat well boyled and levened, let him abstaine from salt meat, and that which is dryed, but especially from Hogs Flesh ; the Flesh of young Bullocks, Capons, and of Birds that live in woods is profitable for him ; also boyle with his meate and other pottages, Hyslope, Mariorum, Sage, Rosemary, Eye-bright, the Roots of Parsley, Pimpernell, and the like : But if the fluxe bee caused of thin and sharpe humours, then boyle with his meate and pottage, and other warme things Borage, Buglosse, Sorrill, Chernill, Celandine, Eyebright, Fennell, and Purslow seedes, with many other things.

Other

Other pottages are also very hurtfull, as those of Lettices, Parslow, Colworts, as also of Mili-
ons, Onions, Leekes, Garlike, Musterd-seed, Ra-
dishes; as also Pepper, Ginger, Cloves, pease,
and white meats instead of Butter, all which are
naught for Fluxes of the eyes.

Strong wine and strong Ale doe also hurt, let
him use Ale that is not very strong, but well boy-
led, or else Pthisan drinke, wherein Agrimony,
Eye-bright and Pruens have beene boyled, then let
it be a little sweetned with Sugar and spiced with
Cinamon; but if the Patient cannot abstaine from
wine, by reason of Age or Imbecility of the ven-
tricle, let him choose old white wine which is not
very strong: Sleepe and rest are very convenient
in Diseases of the eyes, but watching and study is
very hurtful, especially presently after meat, to
which may be added *Venus Sports*.

Secondly, let the hurtfull humour which flow-
eth to the eyes, be digested, prepared and evacuated
and if the flux be caused by a hot and sharp Hu-
mour, let it bee digested with this following Ju-
lip:

*℞ Aquar. Bitonica. Euphrasie. Borruginis
Acisoce ana. ʒ i. β. Syrupi de nymphaea
Violatia et de Cicorio ana, ʒ β misce.*

Make a Julip for two mornings, and then purge
him with this following potion:

*℞ Eleſtuar. diacathol. ʒ iv. Diaphenic ʒ ij,
Syrupi ros. solut. cum Rhabar. et Agaric, ʒ ij.*

Make

Make a potion with the water or decoction of Betony
or Eye-bright, or else administer these Pills:

*Rx Masse pillular de quinque generibus myrobolor.
Pil. agregativar ana. ʒ β. Diagridii grana iiii.*

With water of Eye bright, forme fine pills unto
Children you may administer them from ʒ i. to ʒ ii.
or ʒ iii. according as age and strength doth perm it;
also let them be purged with Manna, or the powder
of *Machaoran*, the body being purged use this follow-
ing Ele&uary:

*Rx Conserve Flor. betonica Euphrasie et
Rosarum ana. ʒ misce.*

Vnto Children give a dram or two; the body be-
ing purged, use this following Ele&uary.

*Rx Conser. Flor. beton. et Euphrasie ana. ʒ ii.
Salvie et Rosmarini ʒ i. misce.*

Let the Patient take of this Ele&uary, the stomacke
being empty, the quantity of a nut, the Decoction of
Guaiacum, the roots of *China* *sarsa* *Parilla* *Sassaparilla*,
is very good to dry up evil humours and to strengthen
the sight: Also the stomack ought to be looked unto
because of his vicinity with the brain, for a weak sto-
mack sendeth many vapours unto the brain which doe
after descend unto the eyes; therefore let the Patient
abstaine from all things which do clog the stomacke,
and are hard of digestion, let him also take twice a
weeke ʒ i. of this Masse;

*Rx Pil. biere pigr. simpli. gal. masse pillul. Assaieret.
Rhab. opt. triti pulveris sene ana. ʒ i. Gariophiller.
Macis. Cinamoni ana. ʒ β.*

With Syrup. Rosar. lenit, make a Masse of Pill.

Or else this following powder;

G

Rx Seme

Rx *Sem. Coriandri preparat Sem anisi ana. ʒ i.*
Flor. betonica Rosar. rubr. Euphrasia ana. ʒ β.
Cinamoni electi macis ana ʒ ii.
Pellicular, interior. Ventriculi, Galinarum ʒ β.
Sacchari rosat, ad pondus omnium.

Mix them, and make thereof a powder.

Now followeth the 3 Intention which consisteth of Medicine Chirurgicall, therefore if there be great pain, apply to the forehead some defensive out of the 7. Chap. but drop into the eyes this following Colery, and apply it with doubled clothes wet therein.

Rx *Aquar. plantaginis Rosarum Euphrasia ana. ʒ i.*

Ceruse lota Tutie preparat.

Olibani subtilis. pulv. ana. ʒ. i. misce.

But if the flux of the eyes be of cold humours, then apply this Colery following :

Rx *Aquar. Euphra. Foeniculi Ruta ana, ʒ ii.*

Olibani, Mastice, Myrrhe, Aloes,

Tutie preparat. Sacocolle ana. ʒ. i.

Make a Colery according to Art.

If the flux be of blood and of hot humours, then open the Cephalica veyne in the arme; if age doe give way, unto children apply Leeches unto the Cephalica veyne in the arme, or unto the jugular veynes in the necke, also apply Cupping-glasses with great flame unto the shoulders; also apply this following Viscatory behind the eares.

Rx *Canthar. in Pulv. redact. num. vj.*

Fermenti acris ʒ β misce.

With a drop or two of strong Vinegar,
 The inner Barke of the black Grape tree, if it be bruised and applyed, hath the same quality.

Allo

Also let the Patient use twice or thrice a weeke this following Masticatory :

Rx *Masticis Radic. Pyretri. Summitat maiorane.*
Nucis Muscate ana. 3 i.

Make thereof trochisqs in a mortar, about the bignes of a Lupine : Also Mastique being chewed and kept a good space in the mouth, doth draw much humidity from the brain, also Rasons and Damasine Prunens, moistned in Oyle of Fennell, and chewed, although they doe not altogether so much draw Humours from the braine, yet they doe corroborate the braine and sight.

I doe not allow of sneezing powders in diseases of the Eyes, for by drawing of humours unto the nose, they fill the Nerves Optiques therewith, and so weaken the sight, also strew this following powder upon the Head :

Rx *Flor. rorismarini, Salvie, Betonice, Stoechados,*
Rosar. rubr. Summitatum maiorini ana. M. ʒ.
Coriand. Prepar. ʒ. i. Ligni aloes, Misticks, Thuris,
Diam. dulc. Nucis moscate Granor. Alkermes.

Cut them small, and beat them together in a mortar according to Art.

If the sight be weakned, by reason of a continuall and long flux, let it be corroborated with this following distilled water :

Rx *Euphra. cum toto Anagal. flore Purpureo.*
Herbar foenic. ana. M. X. ii. Rute M. vi. incidantur.

Afterwards powre upon them of Rose-water lb. ii. set them in the Sunne in a glasse vessell well stopped, the space of a day, and then distill them in *Balneo Mariae*, with a gentle fire, it is good for the sight.



CHAP. XIV.

*Of the deformity of Scarres and their
Remedy.*

THe chief causes of the deformity of scarres, after the cure of Combustions, are first, that the skin, flesh, veynes, &c. are drawne together and hardned with the force of the fire; Secondly, because that the radicall moysture (by whose benefit all Vlcers are cicatrised) is by the force of the fire dried and consumed, whereby it commeth to passe, that even as dry and barren ground bringeth forth weeds, Cockel, and all other imperfect things; but on the contrary the fat and moist ground bringeth forth all things perfect; so also by the defect of the naturall heat and radicall moisture, there commeth filthy scarres; also the use of cold Medicines causeth naughty scarres, as *Hippocrates* witnesseth in these words, *Cold things are biting in Vlcers, hardneth the skin causeth intolerable paine, blacknesse, &c.* Wherefore, that we may avoid these hurtfull things, we ought presently in the beginning to apply emolent Medicines, as wee have before instructed: Now, as appertaining to the cure, first of all let the hardnesse of the skin be softned and made supple with the fat of Beares, Hens, Capons, Oyle of Lillies, and of the yeolke of Egges, or else with this following Oyntment,

Rx Pin-

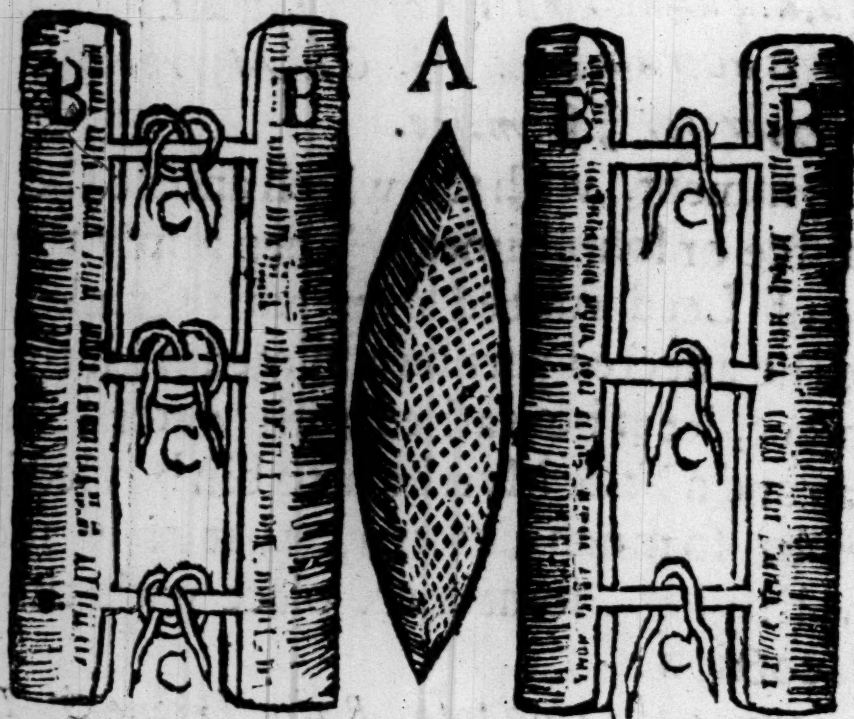
(55)

*Rx Pinguid. galine Vrsi Piscis Thymali. Liliorum.
De vitellis ovorum ana. 3 ij. Ol. Myrrhe 3 i.
Succi lumbricor 3 β. misce.*

Make an Oyntment, with the which anoint the scar, every day three or foure times : Then apply thereon a thin plate of Lead rubbed over with Quick-silver, but before the affected part be anointed with the fore said Ointment, let it be washed with water, in the which Bran and a little Myrrhe hath bin boyled, but if the scarres be so much elevated, that they require greater mollifying, foment the place with this following Decoction :

*Rx Radicum althe cum toto, Ralic. brione & Lilior
Albor. ana. 3 i. Flor. Chamomille Mel. loti ana. M. i.
Sem. Foenogr. lini. ana. 3 β.*

Let them be boiled in water. or else in the Decoction of the head and feet of a Weather, and apply it with sponges, or clothes dipped therein ; after the fomentation, anoint with this following Oyntment, and apply thereon a Cerot of Oesope, or a plaister of Frogs with Mercury, and reiterate it every day, untill the cicatrix be sufficiently mollified, that it may be pressed downe with the plate of Lead. And as often as the Chirurgion shall anoint the scar, let him endeavour to stretch the skin that is contracted, with both his hands, as the Glovers doe their skin. Then let the wound which was before contracted, be dilated, which may be fitly done with linnen clothes spread over with glue, as is expressed by this following figure.



A The wound of the scar being cut. BB B B these are foure linnen clothes spread over with glew, two whereof shall be placed to both sides of the wound so that there remaine some space betweene them, as appeareth by the Figure. C C C C C C these are fixe strings to be tyed in knots, which may be more or lesse, according to the magnitude of the wound; furthermore, as soone as the glew is dry, so that the Linnen clouts doe sticke fast, which will be within the space of foure or five houres, then let the string be tyed fast together, and so the skin which is between the clouts will be drawne and forced together and the wound will be dilated; In the meane time, hasten to cure and cicatrice the wound as fast as you may, and remove not your clouts untill the wound be cured, let your Glew be made of astringent and clammy things, and of healing Plaisters, as

*Rx Farine volitatis ʒ i. Mastice Rosar. rub.
Sanguinis dracon. ana. ʒ ii.*

Make

Make thereof a fine powder and mixe it with the whites of Eggs and Gum. Tragacanth. to the thicknesse of Honey.



CHAP. XV.

Of the retracted Nerves and crooked Juncturs after Combustions.

IN great Combustions of the Joynts, the sinewes are divers times retracted and dtawn together, and the junctures are made crooked, and especially if the Chirurgion was not very diligent in the beginning, and applyed not the splints and other instruments, concerning which we have written in our 11. Chapter, wherefore we must institute a new cure; but first let the body be purged according to the nature of the humour predominating; for which these things following are very convenient, *Pil. de hirmodact. & Pil. Agrag.* also *Elect. Indiur. et benedict. taxatina.*

If the body be full of humours open a veyne, and draw blood acording to the magnitude of the strength concerning which take the counsell of a Physitian.

The body being purged and prepared, as we have even now shewed, the affected part is to be mollified and supplied with this following Decoction.

*Rx Radicum Althea cum toto Radic. Briconia
Lillior albor Malvarum ana. ʒ ii. Fol violarum.
Flor. Chamomilla Meliloti. Hyperici Cham. ana. M. i.
Sem.*

(58)

Sem. Eoenogr. Sem. Lini. ana. ʒ i.

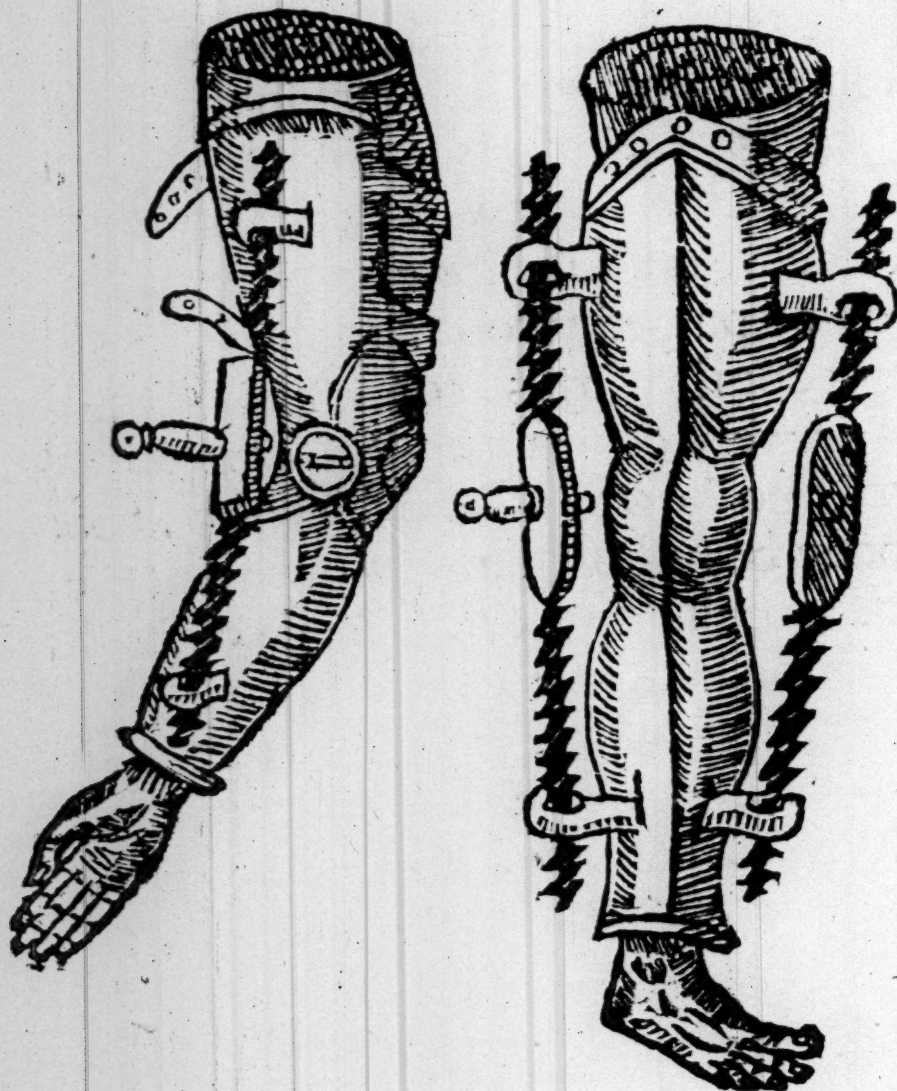
Boyle them in the Broth of the head and feet of a Weather, for a Fomentation, then anoint the whole Member with this following Ointment,

Rx Vaguent. de Althea Auxungie humane.

Gallinasum Asferis Vrsi ana ʒ β.

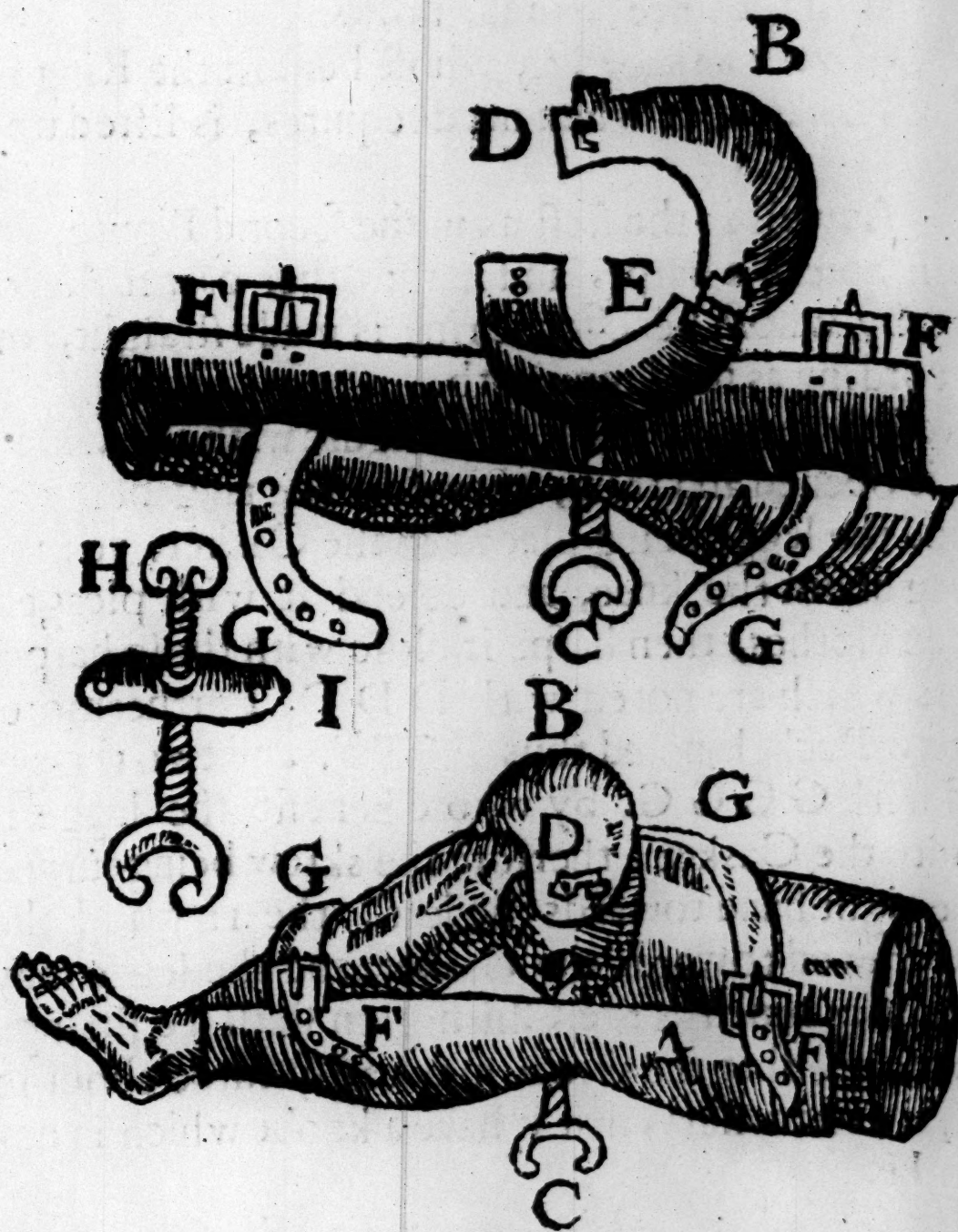
Succilumbricor ʒ β i. Aque vita ʒ β.

Afterwards apply a Plaister of Musilage, Hysope, or Melilot spread upon a clout, the sinewes, ligaments, and junctures being well molified, we must use extension, which may be fitly done without pain, with fit Instruments; if the disease be in the knee or Elbow, then those Instruments are very convenient which are drawn by *Gualtherus Reyff* in his Chirurgery.



(59)

Or else this following Instrument of our invention
which you may prepare with a little trouble, and it may
serve as well to the Elbow as the Knee,



▲ A notifieth a little Casker made of wood, as well in
the first figure as in the second.

B B is an Iron plate made in the fashion of a Ring
H bein

being of such breadth, that it will compasse the whole knee; but that in the first figure is open, and the other is shut and compasseth the knee, but that it may the better be fitted, it is necessary that part which belongeth to the rowndell of the knee be made hollow.

C C. Sheweth a skrew, by whose benefit the Ring is drawne downwards, or when need requires, is lifted upwards.

D D D As well in the first as in the second Figure, in one part it noteth a haspe, and in the other part it sheweth holes, by whose benefit the ring is made straight, or flake, according as need requireth.

E. Noteth hinges; in the first Figure with the which the ring is opened and shut; therefore the ring being opened, and the legge being placed in the Casket, ye shall fit the ring about the knee, and defend it with pleagers and linnen clothes, then haspe it close with those haspes and holes which are noted with D D D. Furthermore, it hath two Buckels noted thus F F F F. and two thongs signified with G G G G. by whose benefit the legge is bound into the Casket: therefore the skrew being turned from the right hand towards the left, the ring and the knee are drawed towards the Casket, and the legge may be extended as much as the Chirurgion shall see fitting: Furthermore, that the skrew may easily turne about in the ring, it is necessary, that it have a knobe which is noted with H.

I. Is an iron plate which is annexed to the Casket, between the two Buckels, that thereby the skrew may the more easily be turned about.

But if the Combustion be in the Fingers, an industrious and witty Chirurgion may invent Fit instruments for the purpose: I have restored all the Fingers except the

the Thumbe of the right hand, which by a Combustion were drawne and conglutinated to the back of the hand, which kind of cure, although we have already touched in our observations, yet lest any thing should be here desired, which may fit to this purpose, I will here againe annex it, Reader doe thou favourably judge of them all.

Anno 1596 *Isaacke Gatteran* of *Perrey*, brought unto me *Michael* his son, which was of the age of 14. months, who at the age of sixe months, fell with his right hand into the burning coales, whereby his fore-finger, middle-finger, ring-finger, and little finger, were so burnt together with the back of the hand, that the fingers fell downe even unto the first articulation; but because his Father did commit the Cure to unskillfull people, all his fingers except his thumbe were compact together with the skin of the backe of his hand, as it were in the forme of a Globe as is seene by this following Figure:



After seven months, when the cure was perfectly finished, the parents of the fore-said Child brought him unto me, pittifully desired my helpe, wherefore when I had purged his body with Manna, being given him in his broth, I did prepare Chirurgicall Medicines, as followeth; First I used this following Decoction and Oyntment for certaine dayes together:

*Rx Radic. altheae cum toto Radic. Bryon. Lilior alb. ana. ʒ i.
Flor. Chamomil. Meliloti. Chamedr. ana. M. j.
Sem. Feenogr. lino ana. ʒ i.*

Let them be boyled in the broth of the head and feet of a Weather for a fomentation, then anoint the whole hand and arme with this following Oyntment:

*Rx Unguent dialtheos ʒ i. Auxanguie humane Gallinarum
Anseris, Vrsi, succi lanibricor ʒ ʒ.*

Mix them and make an Oyntment, then rowle the hand in a plaister of Musilage, when the Nerves and the Callosity of the wrinkled skin of the backe of the hand, and of the fingers, were with these things sufficiently mollified; I cut away that hard skin between the backe of the hand and the fingers, with an incision knife; and I also separated the fingers, then I strewed thereon my powder, to stanch blood, and I appled thereon the whits of Egges mixed with the waters of Roses and Plantaine and Oile of Roses; also I layed a defensive to the wrist, the next day I applyed this following digestive with soft plegers upon the incisions, as before with Oyles.

*Rx Teretinth. lot. in aqua. plantag. et Rosar ʒ. i.
Olei rosae. et de vitelovor ana. ʒ. ii. ʒ ʒ.
Vitell. Vnius oui misce.*

The 5 day I used this following Instrument, and I endeavored by little and little to bring the fingers to their naturall order:

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A is a Splint of the breadth of three fingers, so long, that it may reach almost from the wrist to the elbow.

B is a round sticke of the thickeffe of the thumbe, which is fixed to the Splint, and in the middle of this sticke are foure wodden pins, noted with C C C C.

H 3

also

Also the splint hath two Buckels noted with D D. and two thongs signified by E E. by whose benefit the Instruments is bound to the arme: Therefore when the Instrument was well bound to, and every where well bolstered with linnen clothes, I had in readines finger-stalls made of Leather, which put upon the tops of the Fingers, and with the strings that hangeth to them, I drew the Fingers downwards, and bound them to the pins noted with C C C C. and every day I tyed them straighter.

Which that it might the easier be done, I anointed the arme with the aforesaid Oyntment, as often as I dressed the wound, and lest that the Fingers should againe conglutinate, I put between them leaden plates, and so by little and little the Fingers were reduced to their proper functions; In the meane time I consolidated and cicatrised the wounds, but not with those things which doe greatly dry, but those which have also an emolent faculty, with such Medicines as we have shewed, and so by Gods helpe we restored the hand to his proper use.



CHAP. XVI.

Of Lightning, and how those which are stricken with it, are to be succoured.

BEcause that of all Fires, the Fire from Heaven is most vehement and dangerous, and containeth in it certaine

certaine supernaturall faculties, with which a man may soone be destroyed; therefore I will make no long stay to what should be done therein: For this cause I have thought good (for the benefit of the Reader) briefly to shew how those who are stricken with Lightning are to be handled and I doe admonish all Chyrurgions, that if they possible may, they take a Physitian with them to such kinde of Patients,

Now seeing this heavenly Fire (as experience teacheth) containeth in it certaine supernaturall qualities, we may also perceive it to have an adjunct quality and matter, very hurtfull and venomous, which is easily perceived by that horrible stincke and pestiferous odour which commeth as well from men as from other creatures that are stricken with Lightning: Hence it is, (as divers learned men doe testifie) that Beares, Foxes, Conies, or other creatures using such places, which are stricken with Lightning, by reason of the filthy smell they cannot stay in their dens; and dogges also will not eate of the Flesh that hath been stricken with Lightning.

By these things we may perceive how dangerous it is to use hearbs which grow in such places: and the Earth (as *Oulans* witnesseth) is perceived as it were to be strewned with Brimstone, wherefore it is no marvell, that men do without any manifest cause fall downe dead,

Now this Fire, as *Seneca* witnesseth, is subtile; hence it commeth, that inanimate creatures, as Trees, and the like, are also hurt; Also besides that subtilty it hath in it a most dry substance, and earthy; hereby it commeth to passe, that it penetrateth and hurteth the soft parts of the body, but those which are more hard it breaketh, which I have observed not onely to chanceto animate creatures, but also to those which are inanimate.

If there be any pustels, wounds, or spots, then apply onions mixed with salt, or the leaves of rue powned with Treacle, and also apply Cupping-glasses and Leaches, the Bladders being first cut; those things which doe cause putrifaction and the falling of the scar, in this cause are not to be used; therefore cut off the Escarre with a paire of cizors, and then apply this following mundifying Oynement:

Rx *Mellis Rosacei* ʒ ij. *Fragueris radic. vincet & Angeli. ana.*
Fol. ruta cum pul. gussalpini Theriaca ʒ ii. *Aqua vita* ʒ β *misce.*
 Make thereof a Mundicative, when the Ulcers are mundified then strew on this following powder:

Rx *Pulveris radic. Vincetoxici & Angelica ana.* ʒ i.
Myrrhe, Mastice, Oliban, Fol. Scordii ana. ʒ iv.
 Make them all into a small powder, with the which with a sufficient quantity of the juice of Sanicle or of peares, make thereof Trochiscus and dry them in the shade, then make it into powder

If any bones be broken, they are to be reduced, but the Chirurgion ought to have a great care that he apply not such astringent and cooling plaisters, as he useth to do in other fractures. for they doe hinder the expiration of the venome; wherefore apply this following Cataplasme:

Rx *Farina Fabar. Lupinor, ana.* ʒ i. β. *Pul. radic. vincetoxici & Angelica ana.* ʒ β. *Pollor. ruta M.* β.

Boyle them with Oximel. unto the forme of a powlrice, then mix therewith of Triacle or Mithridate ʒ i. and let fracture be once every day new bound up, and let the powlrice be renewed, but first wash the member with wine in the which the roots of Angelica hath been boyled, and a little Triacle dissolved in vinegar of Roses, which ought to be done presently whilst the feere of the venome is present; also apply a Defensive about the broadnesse of the palme of the hand, about the fracture, that the elevation of the venome may be turned from the noble parts:

Ye ought also to looke, that the belly be kept soluble, which if it be not so by nature, then use Suppositories and Clusters, abstaine from purging and blood letting, except there be any particular occasion to the contrary, in the which take the counsell of a Physician.

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